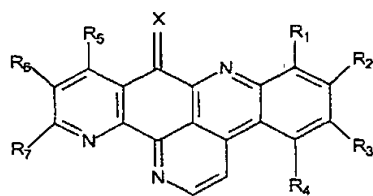


AMENDMENTS TO THE CLAIMS:

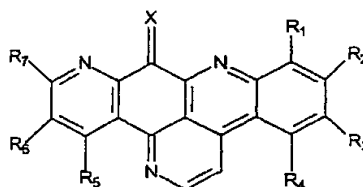
This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A pharmaceutical composition comprising an effective amount of a compound chosen from the compounds of general formulae I and Ia below for treating, by virtue of their cytotoxic properties, cancerous tumors and their metastases:



Formula I



Formula Ia

in which:

- X is chosen from oxygen, an ~~NH~~ group and an ~~N-OH~~ group,
- R₁ is chosen from hydrogen, halogens, a nitro group and groups -NR₈R₉ in which R₈ and R₉ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,
- R₂ is chosen from hydrogen and halogens,
- R₃ is chosen from ~~hydrogen~~, halogens, (C₁-C₄) alkyl groups, (C₁-C₆) alkoxy groups, a guanidino group, groups -NR₁₀R₁₁

in which R_{10} and R_{11} are chosen, independently of each other, from hydrogen, (C_1-C_4) alkyl groups, (C_1-C_4) phenylalkyl groups and groups $-(CH_2)_n-Y$ with Y being chosen from halogens and CN , $-CH(O-Et)_2$, (C_1-C_6) alkoxy, $-O-(CH_2)_2-N(CH_3)_2$ and $-N(CH_3)_2$ groups and $n = 1$ to 3 ,

- R_4 is chosen from hydrogen, halogens, nitro groups and groups $-NR_{12}R_{13}$ in which R_{12} and R_{13} are chosen, independently of each other, from hydrogen and (C_1-C_4) alkyl groups,

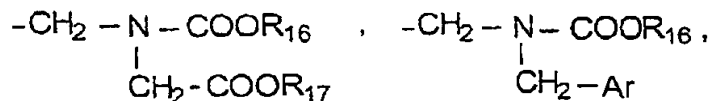
- R_5 , R_6 and R_7 are chosen from:

hydrogen or a halogen atom,

C_1-C_6 alkyl, hydroxyl, C_1-C_6 alkoxy, (C_1-C_6) alkoxy (C_1-C_6) alkyl, (C_1-C_4) alkylcarbonyloxy (C_1-C_4) alkyl, $-CHO$, $-COOH$, $-CN$, $-CO_2R_{14}$, $-CONHR_{14}$ and $-CONR_{14}R_{15}$ groups, $-NHCOR_{14}$ and $-NR_{14}R_{15}$ in which R_{14} and R_{15} are chosen, independently of each other, from hydrogen and (C_1-C_6) alkyl, $-phenyl-CO-CH_3$ and $-CH_2-CH_2-N(CH_3)_2$ groups,

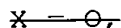
$-phenyl-CO-CH_3$ or $-phenyl-CO-CH=CH-N(CH_3)_2$, morpholino, nitro or SO_3H groups,

groups:



R_{16} and R_{17} being chosen from C_1-C_6 alkyl groups and Ar being a C_6-C_{14} aryl group,

~~with the exclusion of the compounds of formula I containing the combination:~~



~~and, either : R₁, R₂, R₃, R₄, R₅, R₆, R₇ = H,~~

~~or : R₁, R₃, R₄, R₅, R₆, R₇ = H and R₂ = Br,~~

~~or R₁, R₂, R₃, R₄, R₆, R₇ = H and R₅ = OH~~

and with the exclusion of the compound formula Ia containing the combination X = O and R₁, R₂, R₃, R₄, R₅, R₆, R₇ = H,

and the addition salts of these compounds with pharmaceutically acceptable acids.

2. (currently amended) A pharmaceutical composition comprising an effective amount of a compound chosen from the compounds of formula I in which:

- X is chosen from oxygen, ~~an -NH group and an -N-OH group,~~

- R₁ is chosen from hydrogen, halogens, a nitro group and groups -NR₈R₉ in which R₈ and R₉ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,

- R₂ is chosen from hydrogen and halogens,

- R₃ is chosen from ~~hydrogen,~~ halogens, (C₁-C₄) alkyl groups, (C₁-C₆) alkoxy groups, a guanidino group, groups -NR₁₀R₁₁ in which R₁₀ and R₁₁ are chosen, independently of each other, from hydrogen, (C₁-C₄) alkyl groups, (C₁-C₄) phenylalkyl, -(CH₂)₂-N(CH₃)₂, and -(CH₂)₂-O-(CH₂)₂-N(CH₃)₂ groups,

- R_4 is chosen from hydrogen, halogens, nitro groups and groups $-NR_{12}R_{13}$ in which R_{12} and R_{13} are chosen, independently of each other, from hydrogen and (C_1-C_4) alkyl groups,

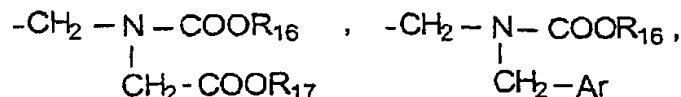
- R_5 , R_6 and R_7 are chosen from:

hydrogen or a halogen atom,

C_1-C_6 alkyl, hydroxyl, C_1-C_6 alkoxy, $-CHO$, $-COOH$, $-CN$, $-CO_2R_{14}$, $-CONHR_{14}$ and $-CONR_{14}R_{15}$ groups, $-NHCOR_{14}$ and $-NR_{14}R_{15}$ groups in which R_{14} and R_{15} are chosen, independently of each other, from hydrogen and (C_1-C_6) alkyl and $-CH_2-CH_2-N(CH_3)_2$ groups,

$-\text{phenyl}-CO-CH_3$ or $-\text{phenyl}-CO-CH=CH-N(CH_3)_2$, morpholino, nitro or SO_3H groups,

groups:



R_{16} and R_{17} being chosen from C_1-C_6 alkyl groups and Ar being a C_6-C_{14} aryl group,

~~with the exclusion of the compounds in which $X = O$, and, either:~~

~~$R_1, R_2, R_3, R_4, R_5, R_6, R_7 = H$, or: $R_1, R_3, R_4, R_5, R_6, R_7 = H$~~

~~and $R_2 = Br$, or $R_1, R_2, R_3, R_4, R_6, R_7 = H$ and $R_5 = OH$,~~

and the addition salts of these compounds with pharmaceutically acceptable acids.

3. (currently amended) The pharmaceutical composition as claimed in claim 2, comprising an effective amount of a compound chosen from the compounds of formula I in which:

- X represents oxygen,
- R_1 is chosen from hydrogen and an amino group,
- R_2 is chosen from hydrogen and halogens,
- R_3 is chosen from ~~hydrogen~~, halogens, (C_1-C_4) alkyl groups, (C_1-C_6) alkoxy groups, a guanidino group, groups $-NR_{10}R_{11}$ in which R_{10} and R_{11} are chosen, independently of each other, from hydrogen, methyl groups, (C_1-C_4) phenylalkyl, $-(CH_2)_2-N(CH_3)_2$, $-(CH_2)_2-O-(CH_2)_2-N(CH_3)_2$ groups,

- R_4 is chosen from hydrogen, halogens and nitro and amino groups,

- R_5 , R_6 and R_7 represent a hydrogen,

~~with the exclusion of the compounds in which R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , $R_7 = H$, or R_1 , R_3 , R_4 , R_5 , R_6 , $R_7 = H$ and $R_2 = Br$,~~

and the addition salts of these compounds with pharmaceutically acceptable acids.

4. (currently amended) The pharmaceutical composition as claimed in claim 1, comprising an effective amount of a compound chosen from the compounds of formulae I and Ia in which:

- X represents oxygen,
- R_1 is chosen from hydrogen and an amino group,
- R_2 is chosen from hydrogen and halogens,

- R₃ is chosen from ~~hydrogen~~, halogens, (C₁-C₄) alkyl groups, (C₁-C₆) alkoxy groups, a guanidino group, groups -NR₁₀R₁₁ in which R₁₀ and R₁₁ are chosen, independently of each other, from hydrogen, methyl groups, (C₁-C₄) phenylalkyl groups and groups -(CH₂)_n-Y with Y being chosen from halogens and groups CN, -CH(O-Et)₂, (C₁-C₆) alkoxy, -O-(CH₂)₂-N(CH₃)₂ and -N(CH₃)₂ and n = 1 to 3,

- R₄ is chosen from hydrogen, halogens, and nitro and amino groups,

- R₅ is chosen from a hydrogen, a halogen and a methoxy group,

- R₆ and R₇ are chosen from hydrogen and C₁-C₆ alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl and -CH₂OCOCH₃ groups,

with the exclusion of the ~~compounds of formula I in which R₁, R₂, R₃, R₄, R₅, R₆, R₇ = H or R₁, R₃, R₄, R₅, R₆, R₇ = H and R₂ = Br, and of the compound of formula Ia in which R₁, R₂, R₃, R₄, R₅, R₆, R₇ = H,~~

and the addition salts of these compounds with pharmaceutically acceptable acids.

5. (currently amended) The composition as claimed in claim 4, in which the compounds are chosen from:

5-(dimethylamino)-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,

5-(benzylamino)-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,

5-bromo-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,

~~7-amino-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~

5-amino-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-methyl-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
~~10-methoxy-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
5-methoxy-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
~~7-nitro-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
5-chloro-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-bromo-10-methoxy-9H-quino[4,3,2-de][1,10]phenanthrolin-9-
one,
5-(dimethylamino-2-ethyl)amino-9H-quino[4,3,2-de]-
[1,10]phenanthrolin-9-one,
5-bis(2-chloroethyl)amino-9H-quino[4,3,2-de]-
[1,10]phenanthrolin-9-one,
5-(2-chloroethyl)amino-9H-quino[4,3,2-de][1,10]-
phenanthrolin-9-one,
~~12-methoxy-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
4-bromo-5-amino-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-
one,
~~11-acetoxymethyl-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-~~
~~one,~~
5-bromo-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
5-amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
5-(dimethylamino-2-ethyl)amino-9-H-quino[4,3,2-
de][1,7]phenanthrolin-9-one,
5-bis(chloroethylamino-2-ethyl)amino-9-H-quino[4,3,2-
de][1,7]phenanthrolin-9-one,

5-(chloroethylamino-2-ethyl)amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
4-bromo-5-amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
~~7-nitro-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,~~
~~7-amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,~~
~~12-methoxy-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,~~
and the addition salts thereof with pharmaceutically acceptable acids.

6. (cancelled)

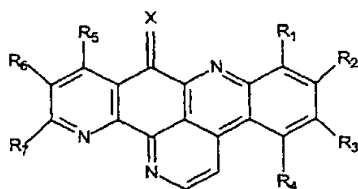
7. (currently amended) ~~The use as claimed in claim 6,~~
~~in which the compounds are chosen from~~ process according to claim
12, wherein said compound is selected from the group consisting
of:

5-(dimethylamino)-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-(benzylamino)-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-bromo-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
~~7-amino-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
5-amino-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-methyl-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
~~10-methoxy-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
5-methoxy-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
~~7-nitro-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
5-chloro-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,

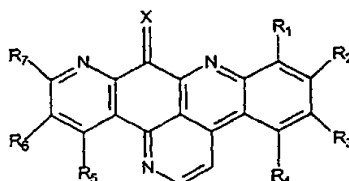
5-bromo-10-methoxy-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-(dimethylamino-2-ethyl)amino-9H-quino[4,3,2-de]-
[1,10]phenanthrolin-9-one,
5-bis(2-chloroethyl)amino-9H-quino[4,3,2-de]-
[1,10]phenanthrolin-9-one,
5-(2-chloroethyl)amino-9H-quino[4,3,2-de][1,10]-
phenanthrolin-9-one,
~~12-methoxy-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
4-bromo-5-amino-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
~~11-acetoxymethyl-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
~~one,~~
5-bromo-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
5-amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
5-(dimethylamino-2-ethyl)amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
5-bis(chloroethylamino-2-ethyl)amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
5-(chloroethylamino-2-ethyl)amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
4-bromo-5-amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
~~7-nitro-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,~~
~~7-amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,~~
~~12-methoxy-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,~~

and the addition salts thereof with pharmaceutically acceptable acids.

8. (currently amended) Compounds of general formulae I and Ia



Formula I



Formula Ia

in which:

- X is chosen from oxygen, ~~an -NH group and an -N-OH group,~~
- R₁ is chosen from hydrogen, halogens, a nitro group and groups -NR₈R₉ in which R₈ and R₉ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,
- R₂ is chosen from hydrogen and halogens,
- R₃ is chosen from ~~hydrogen,~~ halogens, (C₁-C₄) alkyl groups, (C₁-C₆) alkoxy groups, a guanidino group, groups -NR₁₀R₁₁ in which R₁₀ and R₁₁ are chosen, independently of each other, from hydrogen, (C₁-C₄) alkyl groups, (C₁-C₄) phenylalkyl groups and groups -(CH₂)_n-Y with Y being chosen from halogens and CN, -CH(O-Et)₂, (C₁-C₆) alkoxy, -O-(CH₂)₂-N(CH₃)₂ and -N(CH₃)₂ groups and n = 1 to 3,

- R₄ is chosen from hydrogen, halogens, nitro groups and groups -NR₁₂R₁₃ in which R₁₂ and R₁₃ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,

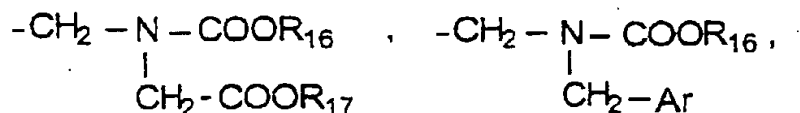
- R₅, R₆ and R₇ are chosen from:

hydrogen or a halogen atom,

C₁-C₆ alkyl, hydroxyl, C₁-C₆ alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₁-C₄)alkylcarbonyloxy(C₁-C₄)alkyl, -CHO, -COOH, -CN, -CO₂R₁₄, -CONHR₁₄ and -CONR₁₄R₁₅ groups, -NHCOR₁₄ and -NR₁₄R₁₅ in which R₁₄ and R₁₅ are chosen, independently of each other, from hydrogen and (C₁-C₆) alkyl, -phenyl-CO-CH₃ and -CH₂-CH₂-N(CH₃)₂ groups,

-phenyl-CO-CH₃ or -phenyl-CO-CH=CH-N(CH₃)₂, morpholino, nitro or SO₃H groups,

groups:



R₁₆ and R₁₇ being chosen from C₁-C₆ alkyl groups and Ar being a C₆-C₁₄ aryl group,

with the exclusion of the compounds of formula I in which X = O,

and, ~~either R₁, R₂, R₃, R₄, R₅, R₆, R₇ = H, or R₁, R₃, R₄, R₅, R₆, R₇ = H and R₂ = Br, or R₁, R₂, R₄, R₅, R₆, R₇ = H and R₃ = OCH₃, or~~

~~R₁, R₂, R₃, R₄, R₅, R₆, R₇ = H and R₅ = OH or OCH₃, or R₁ = NO₂ and R₂,
R₃, R₄, R₅, R₆, R₇ = H~~

and with the exclusion of the compound formula Ia in
which X = O and R₁, R₂, R₃, R₄, R₅, R₆, R₇ = H,

and the addition salts of these compounds with
pharmaceutically acceptable acids.

9. (currently amended) Compounds as claimed in claim 8,
of formula I in which:

- X is chosen from oxygen, ~~an -NH group and an -N-OH group,~~

- R₁ is chosen from hydrogen, halogens, a nitro group and groups -NR₈R₉ in which R₈ and R₉ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,

- R₂ is chosen from hydrogen and halogens,

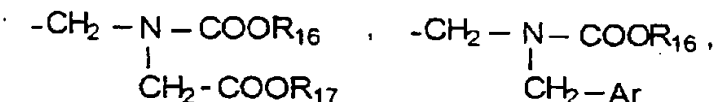
- R₃ is chosen from ~~hydrogen,~~ halogens, (C₁-C₄) alkyl groups, (C₁-C₆) alkoxy groups, a guanidino group, groups -NR₁₀R₁₁ in which R₁₀ and R₁₁ are chosen, independently of each other, from hydrogen, (C₁-C₄) alkyl groups, (C₁-C₄) phenylalkyl, -(CH₂)₂-N(CH₃)₂, and -(CH₂)₂-O-(CH₂)₂-N(CH₃)₂ groups,

- R₄ is chosen from hydrogen, halogens, nitro groups and groups -NR₁₂R₁₃ in which R₁₂ and R₁₃ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,

- R₅, R₆ and R₇ are chosen from:

- hydrogen or a halogen atom,

C₁-C₆ alkyl, hydroxyl, C₁-C₆ alkoxy, -CHO, -COOH, -CN, -CO₂R₁₄, -CONHR₁₄ and -CONR₁₄R₁₅ groups, -NHCOR₁₄ and -NR₁₄R₁₅ in which R₁₄ and R₁₅ are chosen, independently of each other, from hydrogen and (C₁-C₆) alkyl and -CH₂-CH₂-N(CH₃)₂ groups, -phenyl-CO-CH₃ or -phenyl-CO-CH=CH-N(CH₃)₂, morpholino, nitro or SO₃H groups, groups:



R₁₆ and R₁₇ being chosen from C₁-C₆ alkyl groups and Ar being a C₆-C₁₄ aryl group,

with the exclusion of the compounds in which X = O, and, ~~either R₁, R₂, R₃, R₄, R₅, R₆, R₇ = H, or R₁, R₃, R₄, R₅, R₆, R₇ = H and R₂ = Br, or R₁, R₂, R₄, R₅, R₆, R₇ = H and R₃ = OCH₃, or R₁, R₂, R₃, R₄, R₆, R₇ = H and R₅ = OH or OCH₃, or R₁ = NO₂ and R₂, R₃, R₄, R₅, R₆, R₇ = H,~~

and the addition salts thereof with pharmaceutically acceptable acids.

10. (currently amended) Compounds as claimed in claim 8, which are:

5-(dimethylamino)-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-(benzylamino)-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,

5-bromo-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
~~7-amino-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
5-amino-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-methyl-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-chloro-9H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
5-bromo-10-methoxy-9H-quino[4,3,2-de][1,10]phenanthrolin-9-
one,
5-(dimethylamino-2-ethyl)amino-9H-quino[4,3,2-de][1,10]-
phenanthrolin-9-one,
5-bis(2-chloroethyl)amino-9H-quino[4,3,2-de][1,10]phenan-
throlin-9-one,
5-(2-chloroethyl)amino-9H-quino[4,3,2-de][1,10]phenanthrolin-
9-one,
~~12-methoxy-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
4-bromo-5-amino-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-one,
~~11-acetoxymethyl-9-H-quino[4,3,2-de][1,10]phenanthrolin-9-one,~~
5-bromo-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
5-amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,
5-(dimethylamino-2-ethyl)amino-9-H-quino[4,3,2-de]-
[1,7]phenanthrolin-9-one,
5-bis(chloroethylamino-2-ethyl)amino-9-H-quino[4,3,2-de]-
[1,7]phenanthrolin-9-one,
5-(chloroethylamino-2-ethyl)amino-9-H-quino[4,3,2-de]-
[1,7]phenanthrolin-9-one,
4-bromo-5-amino-9-H-quino[4,3,2-de][1,7]phenanthrolin-9-one,

~~7-nitro-9-H-quinol[4,3,2-de][1,7]phenanthrolin-9-one,~~
~~7-amino-9-H-quinol[4,3,2-de][1,7]phenanthrolin-9-one,~~
~~12-methoxy-9-H-quinol[4,3,2-de][1,7]phenanthrolin-9-one,~~

and the addition salts thereof with pharmaceutically acceptable acids.

11. (currently amended) A process for preparing a compound of formula Ia, in which:

- X is chosen from oxygen, an ~~NH~~ group and an ~~N-OH~~ group,

- R₁ is chosen from hydrogen, halogens, a nitro group and groups -NR₈R₉ in which R₈ and R₉ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,

- R₂ is chosen from hydrogen and halogens,

- R₃ is chosen from ~~hydrogen~~, halogens, (C₁-C₄) alkyl groups, (C₁-C₆) alkoxy groups, a guanidino group, groups -NR₁₀R₁₁ in which R₁₀ and R₁₁ are chosen, independently of each other, from hydrogen, (C₁-C₄) alkyl groups, (C₁-C₄) phenylalkyl groups and groups -(CH₂)_n-Y with Y being chosen from halogens and CN, -CH(O-Et)₂, (C₁-C₆) alkoxy, -O-(CH₂)₂-N(CH₃)₂ and -N(CH₃)₂ groups and n = 1 to 3,

- R₄ is chosen from hydrogen, halogens, nitro groups and groups -NR₁₂R₁₃ in which R₁₂ and R₁₃ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,

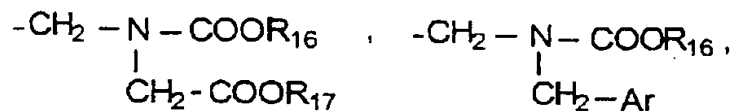
- R₅, R₆ and R₇ are chosen from:

hydrogen or a halogen atom,

C₁-C₆ alkyl, hydroxyl, C₁-C₆ alkoxy, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₁-C₄)alkylcarbonyloxy(C₁-C₄)alkyl, -CHO, -COOH, -CN, -CO₂R₁₄, -CONHR₁₄ and -CONR₁₄R₁₅ groups, -NHCOR₁₄ and -NR₁₄R₁₅ in which R₁₄ and R₁₅ are chosen, independently of each other, from hydrogen and (C₁-C₆) alkyl, -phenyl-CO-CH₃ and -CH₂-CH₂-N(CH₃)₂ groups,

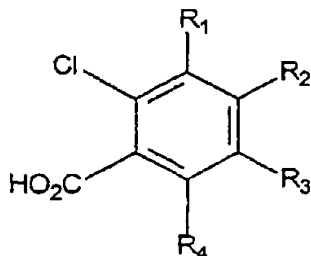
-phenyl-CO-CH₃ or -phenyl-CO-CH=CH-N(CH₃)₂, morpholino, nitro or SO₃H groups,

groups:

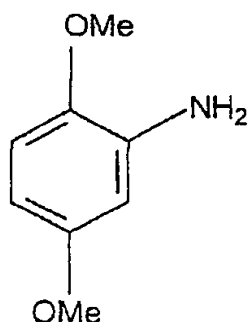


R₁₆ and R₁₇ being chosen from C₁-C₆ alkyl groups and Ar being a C₆-C₁₄ aryl group, which consists in:

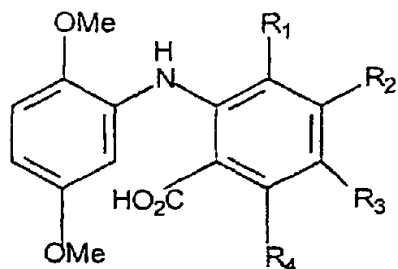
a - condensing a chlorobenzoic acid of formula:



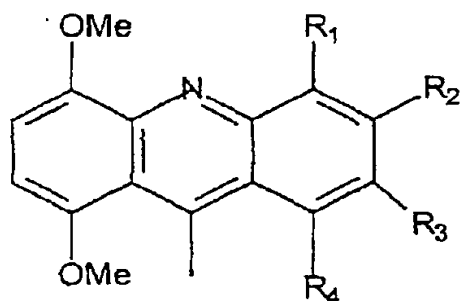
with a dimethoxyaniline of formula:



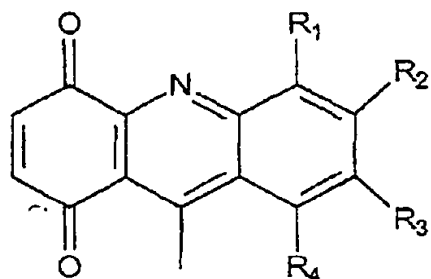
to give a compound of formula IIa:



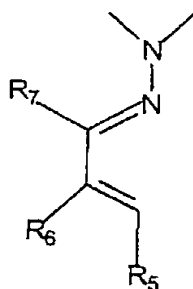
b - cyclizing the compound of formula IIa to give a compound of formula:



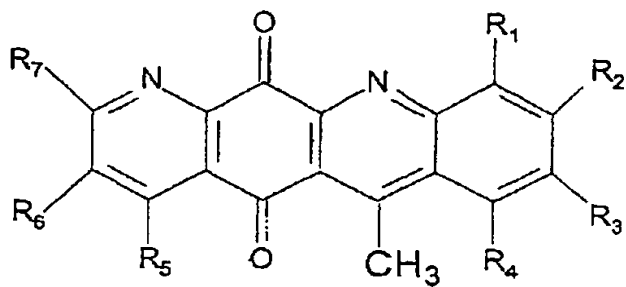
c - converting the compound into a quinone of formula IIIa:



d - reacting the quinone of formula IIIa with an azadiene of formula:



to give a compound of formula IVa:

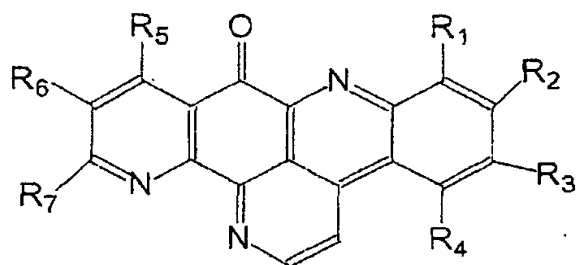


e - reacting the compound of the formula IVa with dimethylformamide diethyl acetal to give the compound of formula Ia,

f - and, optionally, converting the compound thus obtained into another compound of formula Ia.

12. (currently amended) A process for ~~treating patients having a cancer tumor, which consists in~~ inhibiting a tumor in a patient comprising administering an effective amount of a compound as defined in claim 1 to said patient.

13. (currently amended) A process for preparing compounds of general formula I, of formula:



in which:

- R₁ is chosen from hydrogen, halogens, a nitro group and groups -NR₈R₉ in which R₈ and R₉ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,

- R₂ is chosen from hydrogen and halogens,

- R₃ is chosen from ~~hydrogen~~, halogens, (C₁-C₄) alkyl groups, (C₁-C₆) alkoxy groups, a guanidino group, groups -NR₁₀R₁₁

in which R_{10} and R_{11} are chosen, independently of each other, from hydrogen, (C_1-C_4) alkyl groups, (C_1-C_4) phenylalkyl groups and groups $-(CH_2)_n-Y$ with Y being chosen from halogens and CN , $-CH(O-Et)_2$, (C_1-C_6) alkoxy, $-O-(CH_2)_2-N(CH_3)_2$ groups and $-N(CH_3)_2$ and $n = 1$ to 3 ,

- R_4 is chosen from hydrogen, halogens, nitro groups and groups $-NR_{12}R_{13}$ in which R_{12} and R_{13} are chosen, independently of each other, from hydrogen and (C_1-C_4) alkyl groups,

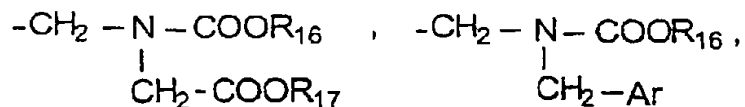
- R_5 , R_6 and R_7 are chosen from:

hydrogen or a halogen atom,

C_1-C_6 alkyl, hydroxyl, C_1-C_6 alkoxy, (C_1-C_6) alkoxy (C_1-C_6) alkyl, (C_1-C_4) alkylcarbonyloxy (C_1-C_4) alkyl, $-CHO$, $-COOH$, $-CN$, $-CO_2R_{14}$, $-CONHR_{14}$ and $-CONR_{14}R_{15}$ groups, $-NHCOR_{14}$ and $-NR_{14}R_{15}$ in which R_{14} and R_{15} are chosen, independently of each other, from hydrogen and (C_1-C_6) alkyl, $-phenyl-CO-CH_3$ and $-CH_2-CH_2-N(CH_3)_2$ groups,

$-phenyl-CO-CH_3$ or $-phenyl-CO-CH=CH-N(CH_3)_2$, morpholino, nitro or SO_3H groups,

groups:

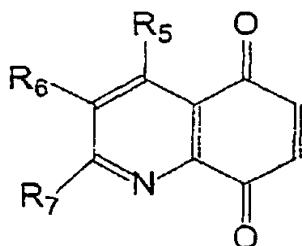


R_{16} and R_{17} being chosen from C_1-C_6 alkyl groups and Ar being a C_6-C_{14} aryl group,

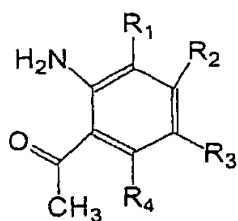
with the exclusion of the compounds of formula I in which either
 ~~$R_1, R_2, R_3, R_4, R_5, R_6, R_7 = H$, or $R_1, R_3, R_4, R_5, R_6, R_7 = H$ and~~
 ~~$R_2 = Br$, or $R_1, R_2, R_4, R_5, R_6, R_7 = H$ and $R_3 = OCH_3$, or $R_1, R_2, R_3,$~~
 ~~$R_4, R_6, R_7 = H$ and $R_5 = OH$ or OCH_3 or $R_1 = NO_2$ and $R_2, R_3, R_4, R_5,$~~
 ~~$R_6, R_7 = H$,~~

which consists

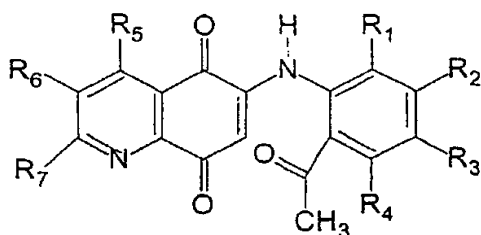
a) in reacting a hydroquinone of formula



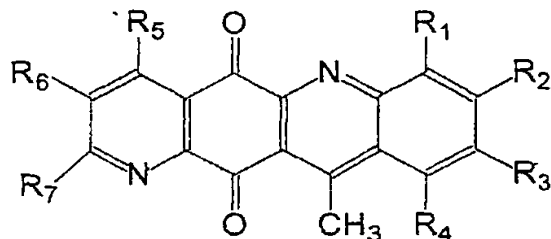
with a compound of formula



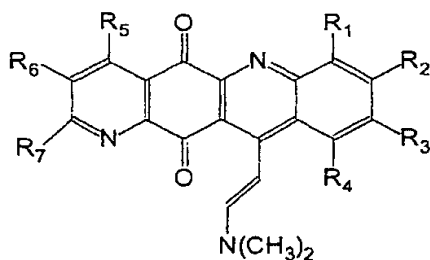
in the presence of $CeCl_3$, $7H_2O$ and ethanol to give a compound
of formula II



b) in converting the compound of formula II into a compound of formula III in the presence of H₂SO₄ in reflux acetic acid,



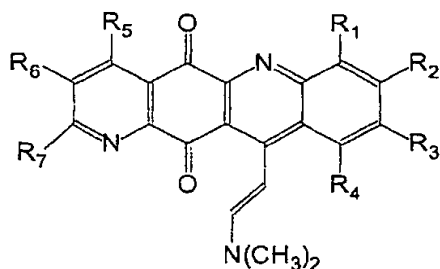
c) in reacting the compound of the formula III with HC(OC₂H₅)₂N(CH₃)₂ in DMF at 120°C to form a compound of formula IV



d) in cyclizing the compound of formula IV to a compound of formula I in the presence of NH₄Cl and AcOH,

e) optionally converting the compound of formula I thus obtained into another compound of formula II.

14. (currently amended) A compound of formula



in which:

- R₁ is chosen from hydrogen, halogens, a nitro group and groups -NR₈R₉ in which R₈ and R₉ are chosen, independently of each other, from hydrogen and (C₁-C₄) alkyl groups,
- R₂ is chosen from hydrogen and halogens,
- R₃ is chosen from ~~hydrogen~~, halogens, (C₁-C₄) alkyl groups, (C₁-C₆) alkoxy groups, a guanidino group, groups -NR₁₀R₁₁ in which R₁₀ and R₁₁ are chosen, independently of each other, from hydrogen, (C₁-C₄) alkyl groups, (C₁-C₄) phenylalkyl groups and groups -(CH₂)_n-Y with Y being chosen from halogens and CN, -CH(O-Et)₂, (C₁-C₆) alkoxy, -O-(CH₂)₂-N(CH₃)₂ and -N(CH₃)₂ groups and n = 1 to 3,

- R_4 is chosen from hydrogen, halogens, nitro groups and groups $-NR_{12}R_{13}$ in which R_{12} and R_{13} are chosen, independently of each other, from hydrogen and (C_1-C_4) alkyl groups,

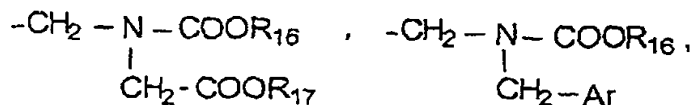
- R_5 , R_6 and R_7 are chosen from:

hydrogen or a halogen atom,

C_1-C_6 alkyl, hydroxyl, C_1-C_6 alkoxy, (C_1-C_6) alkoxy (C_1-C_6) alkyl, (C_1-C_4) alkylcarbonyloxy (C_1-C_4) alkyl, $-CHO$, $-COOH$, $-CN$, $-CO_2R_{14}$, $-CONHR_{14}$ and $-CONR_{14}R_{15}$ groups, $-NHCOR_{14}$ and $-NR_{14}R_{15}$ in which R_{14} and R_{15} are chosen, independently of each other, from hydrogen and (C_1-C_6) alkyl, $-phenyl-CO-CH_3$ and $-CH_2-CH_2-N(CH_3)_2$ groups,

$-phenyl-CO-CH_3$ or $-phenyl-CO-CH=CH-N(CH_3)_2$, morpholino, nitro or SO_3H groups,

groups:



R_{16} and R_{17} being chosen from C_1-C_6 alkyl groups and Ar being a C_6-C_{14} aryl group,

with the exclusion of compounds in which either $R_1, R_2, R_3, R_4, R_5, R_6, R_7 = H$, or $R_1, R_3, R_4, R_5, R_6, R_7 = H$ and $R_2 = Br$, or $R_1, R_2, R_4, R_5, R_6, R_7 = H$ and $R_3 = OCH_3$, or $R_1, R_2, R_3, R_4, R_6, R_7 = H$ and $R_5 = OH$ or OCH_3 or $R_1 = NO_2$ and $R_2, R_3, R_4, R_5, R_6, R_7 = H$,

and the addition salts of these compounds with
pharmaceutically acceptable acids.